



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/748,686	12/31/2003	George Fitzmaurice	1500.1087	1971
21171	7590	02/07/2007	EXAMINER	
STAAS & HALSEY LLP SUITE 700 1201 NEW YORK AVENUE, N.W. WASHINGTON, DC 20005			SHERMAN, STEPHEN G	
			ART UNIT	PAPER NUMBER
			2629	
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		02/07/2007	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	10/748,686	FITZMAURICE ET AL.
	Examiner Stephen G. Sherman	Art Unit 2629

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 20 December 2006.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-31 is/are pending in the application.
  - 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) 26 is/are allowed.
- 6) Claim(s) 1-25 and 27-31 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 24 June 2004 is/are: a) accepted or b) objected to by the Examiner.
 

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All    b) Some \* c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) Notice of Informal Patent Application
- 6) Other: \_\_\_\_\_

**DETAILED ACTION**

1. This office action is in response to the amendment filed the 20 December 2006.  
Claims 1-31 are pending.

***Response to Arguments***

2. Applicant's arguments with respect to claims 1-4, 6-20, 23-25 and 27-31 have been considered but are moot in view of the new ground(s) of rejection.
3. Applicant's arguments filed with respect to claims 5 and 21-22 have been fully considered but they are not persuasive.

The applicant argues on page 10, lines 8-19, that the prior art does not teach or suggest that the interface is in a corner. The applicant points to the section cited from Keely that states: "...the semi-circle of the menu 170 may be somewhat compressed and oriented toward a corner of the display," then the applicant states that the text does not say that the menu is located in a corner. The examiner respectfully disagrees. Keely plainly states that the menu may be oriented downward toward a corner of the display. The examiner understands that if the menu is oriented downward and toward a corner, then the menu may be considered in the corner OF A DISPLAY AREA. As shown in Figures 11 and 12, Figure 11 of Keely shows the orientation of the interface for a right handed person, while Figure 12 shows the orientation of the interface for a

left handed person. As shown by this comparison, the display area containing the interface in Figure 12 shows that the menu is oriented toward a corner of the display area of the interface. The claim does not define what the display area is, and therefore in the examiner's broadest interpretation of the claim language, the examiner understands the display area to be the area of the display concerning the interface, in which the menu is oriented toward a corner. Despite all of this, since the interface is a pop-up menu anyways, if a user clicked in the corner of the entire display area the menu would pop-up there, which means that the interface would be in a corner of the entire display area.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claim 1 is rejected under 35 U.S.C. 102(e) as being anticipated by Anft et al. (US 7,146,005).

***Regarding claim 1***, Anft et al. disclose an interface, comprising:

an interface area located responsive to a natural motion by a user (Figure 5 and column 4, lines 7-22 explain that the interface area having the menu symbols are located in a circular shape to be responsive with a natural motion of a user using the actuator wheel 11.) and, comprising:

an arc shaped persistent graphic defining the interface area (Figure 5 shows that the menu items and the general shape of the interface is a circular shape, meaning that it is arc shaped.); and

controls located in the interface area and accessible via the natural motion (As already explained, the menu symbols 23 are located in the interface area and are accessible via the natural motion of a user using the actuator wheel 11.).

5. Claims 1-4, 6-9 and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Selker (US 2002/0122072).

***Regarding claim 1***, Selker discloses an interface, comprising:

an interface area located responsive to a natural motion by a user (Figure 2 shows that the interface area defined by areas 11-14 and 21-24 are located responsive to the natural motion of a user.) and, comprising:

an arc shaped persistent graphic defining the interface area (Figure 2 shows that the interface is circular shaped, meaning that the outer surface is arced and paragraph [0046] explains that the menu can be fixed, i.e. persistent.); and

controls located in the interface area and accessible via the natural motion (Figure 2 shows that the interface area defined by areas 11-14 and 21-24, which are controls, are located responsive to the natural motion of a user.).

***Regarding claim 2,*** Selker discloses an interface as recited in claim 1, wherein the natural motion is a curve associated with movement of a hand of the user when an elbow of the user is pivoted (Figure 2 shows that the interface area is curved such that a user could place his/her elbow on the surface and the natural movement of the user would coincide with the shape of the interface.).

***Regarding claim 3,*** Selker discloses an interface as recited in claim 2, wherein a location responsive to the natural motion of the user hand is defined by the natural motion passing through a substantial center area of a display area (Paragraph [0046] explains that the position on the display of the menu is not limited meaning that the interface could be located somewhere with respect to a user's hand passing through a center of the display.).

***Regarding claim 4,*** Selker discloses an interface as recited in claim 1, wherein the natural motion is a curve associated with movement of a hand of the user when an elbow of the user is pivoted and one of a wrist of the user is rotated and fingers of the user are moved (Figure 2 shows that the interface area is curved such that a user could place his/her elbow on the surface and the natural movement of the user would coincide

with the shape of the interface, where if the user's entire arm past the elbow is moving then the wrist and fingers are moved as well.).

**Regarding claim 6,** Selker discloses an interface as recited in claim 1, wherein the graphic is a shape corresponding to an arc shaped curve and the controls are positioned in accordance with the curve (Figure 2).

**Regarding claim 7,** Selker discloses an interface as recited in claim 6, wherein a radius of the arc shaped curve is at least a radius of a menu of one of the controls (Figure 2).

**Regarding claim 8,** Selker discloses an interface as recited in claim 6, wherein a control closest to a display area is positioned along the curve at least a radius of a menu of the control from a display edge (Figure 2 and paragraph [0046]).

**Regarding claim 9,** Selker discloses an interface as recited in claim 1, wherein a menu associated with one of the controls has a layout responsive to the curve (Figure 2).

**Regarding claim 11,** Selker discloses an interface as recited in claim 1, wherein the interface is located in a lower left corner of a display area (Paragraph [0046] explains that the location can be made to be anywhere, meaning that the location could

be the lower left corner of the display.) and the controls of the interface are arranged as one of a convex arc across the corner, a concave arc across the corner, a line across the corner, an array in the corner, a convex corner across the corner, a convex arc with a linear portion across the corner, a sectioned pie in the corner, a sectioned pie in the corner and extending across the display area, and a rotatable circle intersecting both sides of the corner (Figure 2 shows that the menu items are located along the arc of the circle.).

6. Claim 31 is rejected under 35 U.S.C. 102(e) as being anticipated by Tambata et al. (US 2003/0048309).

***Regarding claim 31,*** Tambata et al. disclose an interface, comprising:  
a semicircular shaped, display edge intersecting menu bar interface graphic  
(Figure 4 shows that the arc that buttons B1-B3 are located on makes up an interface graphic which intersects the display edges on the left hand side of the Figure.); and  
controls located in the interface graphic and accessible via a natural motion  
(Figure 4, B1-B3).

7. Claims 5 and 21-22 are rejected under 35 U.S.C. 102(b) as being anticipated by Keely, Jr. et al. (US 6,337,698).

***Regarding claim 5,*** Keely, Jr. et al. disclose an interface, comprising:

an interface area (Fig. 10) located responsive to a natural motion by a user (Fig. 11 shows that the interface area is responsive to a natural motion of a user moving his hand naturally) and, comprising:

a graphic defining the interface area (Fig. 10); and controls (Fig. 10, controls 132-140) located in the interface area and accessible via the natural motion (Fig. 11 shows the controls accessible via a natural motion),

wherein an interface location responsive to the natural motion of the user is a lower corner of a display area (see col. 7, lines 10-12, where the location can be in the lower corner).

***Regarding claim 21,*** Keely, Jr. et al. disclose a method and a computer readable storage for controlling a computer comprising: mapping controls of an graphical user interface in an arc shape (Figs. 10-12) at a location responsive to an approach arc (Fig. 10, line 142, see col. 6, lines 39-40, where a motion arc of a user is shown for selecting one of the menu items) and with a radius responsive to an underlying menu (Figs. 10-12, the radius of the user's approaching stroke is the radius of the menu) activatable via one of the controls (Figs. 10-12, where the menu is activated by using the controls); and allowing a user to activate the controls (see col. 6, lines 39-40), wherein the location comprises a display area corner (see col. 7, lines 10-12, where the location can be in the lower corner).

***Regarding claim 22***, Keely, Jr. et al. disclose a method as recited in claim 21, wherein the corner is lower right corner for a left-handed person and a lower left corner for a right-handed person (Figs. 10-12, see col. 6, lines 45-54 and col. 7, lines 7-12, where it is clear that the menu goes in the lower right corner for a left-handed person and the lower left corner for a right-handed person).

### ***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

10. Claims 12-14, 20, 23-25 and 27-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Keely, Jr. et al. (US 6,337,698) in view of Selker (US 2002/0122072).

***Regarding claim 12,*** Keely, Jr. et al. disclose a graphical user interface, comprising:

an interface having an interface arc shape (Figs. 10-12, the interface is in an arc shape), located in corner of a display area (see col. 7, lines 10-12), having graphics for controls arranged along the interface arc (Figs. 10 – 12, where the bubble shapes shown are graphics) and having control hit zones each with a zone shape responsive to an approach arc defined by a dominant motion arc of a motion of a user (Fig. 10, line 142, see col. 6, lines 39-40, where a motion arc of a user is shown for selecting one of the menu items) with the graphics of the controls being located responsive to one-shot function or menu pop-up function with a pop-up menu radius (see col. 6, lines 39-40, where selection of the menu item by making a stroke constitutes a one-shot function).

Keely, Jr. et al. fail to teach that the interface is persistent.

Selker discloses of a graphical user interface wherein a persistent interface has an arc shape and is located in the corner of a display area (Figure 2 and paragraph [0046] explain that the interface can be fixed and can be located in any position on the display, while Figure 2 shows that the menu has an arc shape.).

Therefore it would have been obvious to “one of ordinary skill” in the art at the time the invention was made to make the interface taught by Keely, Jr. et al. be a fixed interface as taught by Selker et al. in order to provide for easy accessibility to the menu items used more frequently and to allow the user to constantly see the options of the menu.

***Regarding claim 13,*** Keely, Jr. et al. and Selker disclose an interface as recited in claim 12.

Keely, Jr. et al. and Selker fail to teach a zone shape comprises one of a wedge, a curved sided triangle and a curved sided trapezoid. However, it would have been an obvious design choice to use one of a wedge, a curved sided triangle and a curved sided trapezoid as the shape for the menu items absent a showing of criticality from Applicant on the need for using these shapes for the claimed function.

***Regarding claim 14,*** Keely, Jr. et al. and Selker disclose an interface as recited in claim 12.

Keely, Jr. et al. also disclose wherein the zones have non-coincident, dominant arc approach paths (Fig. 10, where any arc taken to each of the menu items will have a non-coincident path the arc taken to any of the other menu items).

***Regarding claims 20 and 27,*** Keely, Jr. et al. disclose a method and a computer readable storage for controlling a computer comprising:

mapping controls of an graphical user interface in an arc shape (Figs. 10-12) at a location responsive to an approach arc (Fig. 10, line 142, see col. 6, lines 39-40, where a motion arc of a user is shown for selecting one of the menu items) and with a radius responsive to an underlying menu (Figs. 10-12, the radius of the user's approaching stroke is the radius of the menu) activatable via one of the controls (Figs. 10-12, where

the menu is activated by using the controls); and allowing a user to activate the controls (see col. 6, lines 39-40).

Keely, Jr. et al. fail to teach that the interface is persistent.

Selker discloses of a graphical user interface wherein a persistent interface has an arc shape (Figure 2 and paragraph [0046] explain that the interface can be fixed, while Figure 2 shows that the menu has an arc shape.).

Therefore it would have been obvious to "one of ordinary skill" in the art at the time the invention was made to make the interface taught by Keely, Jr. et al. be a fixed interface as taught by Selker et al. in order to provide for easy accessibility to the menu items used more frequently and to allow the user to constantly see the options of the menu.

***Regarding claim 23,*** Keely, Jr. et al. and Selker disclose a method as recited in claim 20.

Keely, Jr. et al. also disclose wherein the mapping maps controls on the arc responsive to a function of the controls (Fig. 10, the controls are mapped onto the arc-shaped menu according to their function).

***Regarding claim 24,*** Keely, Jr. et al. and Selker disclose a method as recited in claim 20.

Keely, Jr. et al. also disclose the method further comprising minimizing the interface responsive to activation of a minimize control (see col. 7, lines 51-57, where

the pen leaving the surface activates the palette to be toggled off the screen, which is a form of minimizing it).

***Regarding claim 25***, Keely, Jr. et al. and Selker disclose a method as recited in claim 20.

Keely, Jr. et al. also disclose:

displaying a menu upon a touch input (see col. 6, lines 54-55) and allowing a user to select an item of the menu (Fig. 10, shows the path a user takes to select an item);

displaying a menu and performing an interaction upon a dwell input (col. 7, lines 50-57, where the pen leaving the surface can minimize the menu therefore allowing the pen to dwell on the surface allows the user to interactively maintain the display of the menu); and

performing a function upon a stroke input (col. 7, lines 27-30, where the user makes a selection via a stroke input).

***Regarding claim 28***, Keely, Jr. et al. disclose an apparatus, comprising:  
a display (Fig. 11 shows a display); and  
a processor (col. 3, line 50, where a computer has a processor) positioning a graphical user interface of multiple controls in a lower corner of the display area (see col. 7, lines 10-12, where the processor is inherently involved in positioning the menu in the corner),

the interface having an interface arc shape (Fig. 10) and positioning the controls on the interface arc at positions responsive to a natural motion arc of a user when moving a hand from a center of the display toward the corner (Fig. 10, line 142, see col. 6, lines 39-40, where there is a motion made from the center of the menu, which is towards the center of the display when the menu is in the corner, toward the corner).

Keely, Jr. et al. fail to teach that the interface is persistent.

Selker discloses of a graphical user interface wherein a persistent interface has an arc shape (Figure 2 and paragraph [0046] explain that the interface can be fixed, while Figure 2 shows that the menu has an arc shape.).

Therefore it would have been obvious to "one of ordinary skill" in the art at the time the invention was made to make the interface taught by Keely, Jr. et al. be a fixed interface as taught by Selker et al. in order to provide for easy accessibility to the menu items used more frequently and to allow the user to constantly see the options of the menu.

***Regarding claim 29,*** Keely, Jr. et al. and Selker disclose an apparatus as recited in claim 28.

Keely, Jr. et al. also disclose wherein the processor positions the controls responsive to a function of the controls (Fig. 10, where the controls are displayed according to their function, that being of displaying a certain color, and their positioning is inherently performed by the processor).

***Regarding claim 30,*** Keely, Jr. et al. and Selker disclose an apparatus as recited in claim 28.

Keely, Jr. et al. also disclose an apparatus further comprising a stylus-based input system coupled to the processor and the display (col. 3, lines 49-50), and activating the controls responsive to a tap of a stylus on one of the controls (see col. 6, lines 54-55), a dwell of the stylus over one of the control input (col. 7, lines 50-57, where the pen leaving the surface can minimize the menu therefore allowing the pen to dwell on the surface allows the user to interactively maintain the display of the menu) and a stroke of the stylus on one of the controls (col. 7, lines 27-30, where the user makes a selection via a stroke input).

11. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Selker (US 2002/0122072) in view of Kurtenbach (US 5,689,667).

***Regarding claim 10,*** Selker discloses an interface as recited in claim 1.

Selker fails to explicitly teach a marking menu associated with one of the controls having a layout where a downward stroke brings up additional tool palettes and/or dialogs.

Kurtenbach discloses a marking menu associated with one of the controls has a layout where a downward stroke brings up additional tool palettes and/or dialogs (see col. 3, lines 35-60, where a user can bring up a new sub-menu, which constitutes a dialog, by making a stroke towards a menu item but not lifting up the pen).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teachings of Kurtenbach in the device of Selker to have a commonly known method of bringing up an a pop-up menu with a single stroke for allowing additional controls of the menu to be utilized.

12. Claims 15-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Keely, Jr. et al. (US 6,337,698) in view of Selker (US 2002/0122072) and further in view of Anderson et al. (US 5,828,360).

***Regarding claim 15,*** Keely, Jr. et al. disclose a graphical user interface for a digitizer based drawing application, comprising: a semicircular graphic (Figs 10-12, the graphic shown is semicircular) located in a corner of a display area of the drawing based application (see col. 7, lines 10-12); and controls located essentially in an arc in the graphic (Figs. 10-12, the controls are in an arc), said controls comprising: a color control for selecting paint color applied by a drawing tool of the application (Figs. 10-12).

Keely, Jr. et al. fail to teach that the graphic is persistent.

Selker discloses of a graphical user interface wherein a persistent interface has an arc shape (Figure 2 and paragraph [0046] explain that the interface can be fixed, while Figure 2 shows that the menu has an arc shape.).

Therefore it would have been obvious to “one of ordinary skill” in the art at the time the invention was made to make the interface taught by Keely, Jr. et al. be a fixed interface as taught by Selker et al. in order to provide for easy accessibility to the menu

items used more frequently and to allow the user to constantly see the options of the menu.

Keely, Jr. et al. and Selker fail to teach different categories of menu items in an arc-shaped menu and having a tool control located adjacent to a minimize control that provides a menu for selecting a drawing tool, and the color control located adjacent the undo control.

Anderson et al. disclose different categories of menu items in an arc-shaped menu (Fig. 3) and a menu including a tool control that provides a menu for selecting a drawing tool (Fig. 3, item 31c, see col. 5 lines 13-28) where the menu item 31c provides the sub-menu shown in the figure with the different drawing tools).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teachings of Anderson et al. in the menu of Keely, Jr. et al. and Selker in order to have different types of menu items in an arc-shaped menu in order to add the extra functions provided by the menu items and so that these menu items would be easily accessible to hand movements that a user can make and remember easily (see Anderson col. 2, lines 1-3).

***Regarding claim 16,*** Keely, Jr. et al., Selker and Anderson et al. disclose an interface as recited in claim 15.

Anderson also discloses an interface with a minimize control, an edit control providing an undo function (Fig. 3 shows an undo control included in the menu), and Keely, Jr. et al. also disclose a page control providing a page change function for

drawing pages of the application (see col. 8, lines 46-51) and a tool type control and providing a menu for selection a tool type of the application (Fig. 8, 74, see col. 5, lines 53-54, where the select tool is a “tool type” control because it provides options for selecting tool types such as cut, copy, and paste).

However, Keely, Jr. et al., Selker and Anderson et al. fail to teach the relative locations of each control as discussed in the claim. However, at the time of the invention it would have been obvious to a person of ordinary skill in the art to relocate the menu items as described in the claim since such a modification would have only involved a mere change in the location of the menu items. Applicants have not disclosed that the particular positioning of the menu items solves any stated problem, provides any advantage, or used for any particular purpose. Further, a change in location is generally recognized as being within the level of ordinary skill in the art, see *In re Japiske*, 86 USPQ 70 (CCPA 1950). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Keely, Jr. et al., Selker and Anderson et al. to obtain the invention as specified in the above claim.

***Regarding claim 17***, Keely, Jr. et al., Selker and Anderson et al. disclose an interface as recited in claim 16.

Keely, Jr. et al. also disclose an interface wherein the graphic comprises a semicircular band (Fig. 10).

13. Claims 18-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Keely, Jr. et al. (US 6,337,698) in view of Selker (US 2002/0122072) and further in view of Anderson et al. (US 5,828,360) and Kurtenbach (US 5,689,667).

***Regarding claim 18,*** Keely, Jr. et al., Selker and Anderson et al. disclose an interface as recited in claim 15.

Keely, Jr. et al., Selker and Anderson et al. fail to explicitly teach an interface wherein pop-up menus pop-up in association with the selected control and at a distance from side and bottom edges of the graphic to allow all menu commands to be displayed.

Kurtenbach does teach an interface wherein pop-up menus pop-up in association with the selected control and at a distance from side and bottom edges of the graphic to allow all menu commands to be displayed (Fig. 13, see col. 8, lines 1-11, where the pop-up allows all menu commands to be displayed).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the pop-up menu icons of Kurtenbach in the interface of Keely, Jr. et al., Selker and Anderson et al. in order to be able to expand a small unreadable menu from a selection of such small menus into readable form.

***Regarding claim 19,*** Keely, Jr. et al. disclose a graphical user interface for a tablet personal computer based drawing application using a stylus, comprising:

a semicircular graphic (Figs. 10-12) located in a corner of a display area of the drawing based application (see col. 7, lines 10-12) responsive to a natural motion by a

user wherein the natural motion is a curve associated with movement of a hand of the user when an elbow of the user is pivoted (Fig. 10, line 142, see col. 6, lines 39-40, where a natural motion of a user is shown for selecting one of the menu items, and such a motion inherently involves the pivoting of the user's elbow); and

controls located essentially in an arc in the graphic and activated by the stylus (Figs. 10-12, the controls are formed in an arc), said controls comprising:

a color providing a menu for selecting paint color applied by a tool of the application (Figs. 10-12); a page control providing a page change function for drawing pages of the application (see col. 8, lines 46-51);

a tool type control and providing a menu for selection a tool type of the application (Fig. 8, 74, see col. 5, lines 53-54, where the select tool is a "tool type" control because it provides options for selecting tool types such as cut, copy, and paste);

wherein a radius of the arc shaped curve is at least a radius of a menu of one of the controls (Figs. 10-12, where the radius of the arc shaped curve is the radius of one of the menu choices),

wherein a control closest to a display area is positioned along the curve at least a radius of a menu of the control from a display edge (Figs. 10-12, where any of the controls along the curve, including the one closest to the display has at least the radius of the whole menu, meaning that if the menu is located in the corner it will have at least the radius of the menu of the control from a display edge.).

Keely, Jr. et al. fail to teach that the graphic is persistent.

Selker discloses of a graphical user interface wherein a persistent interface has an arc shape (Figure 2 and paragraph [0046] explain that the interface can be fixed, while Figure 2 shows that the menu has an arc shape.).

Therefore it would have been obvious to "one of ordinary skill" in the art at the time the invention was made to make the interface taught by Keely, Jr. et al. be a fixed interface as taught by Selker et al. in order to provide for easy accessibility to the menu items used more frequently and to allow the user to constantly see the options of the menu.

Keely, Jr. et al. and Selker fail to teach different categories of menu items in an arc-shaped menu and controls comprising:

- a minimize control located on a side edge of the graphic and providing a minimize function for the interface;
- a page control located adjacent a bottom edge of the graphic and proving a page change function for drawing pages of the application;
- an undo control located adjacent to the page control and providing an undo function for the application;
- a tool control located adjacent the minimize control and providing a menu for selecting a tool of the application;
- a color control located adjacent the undo control and providing a menu for selecting paint color applied by a tool of the application; and
- a tool type control located between the tool control and the color control and providing a menu for selection a tool type of the application; and

wherein a marking menu associated with one of the controls has a layout where a downward stroke brings up additional tool palettes and/or dialogs.

Anderson et al. disclose different categories of menu items in an arc-shaped menu (Fig. 3) and a menu including a tool control that provides a menu for selecting a drawing tool (Fig. 3, item 31c, see col. 5 lines 13-28) where the menu item 31c provides the sub-menu shown in the figure with the different drawing tools), a minimize control (Fig. 3, where the 'miniview' control is a type of minimize control), and an undo control (Fig. 3 shows an undo control included in the menu).

Anderson et al. fail to teach a marking menu associated with one of the controls has a layout where a downward stroke brings up additional tool palettes and/or dialogs.

Kurtenbach discloses a marking menu associated with one of the controls has a layout where a downward stroke brings up additional tool palettes and/or dialogs (see col. 3, lines 35-60, where a user can bring up a new sub-menu, which constitutes a dialog, by making a stroke towards a menu item but not lifting up the pen).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teachings of Anderson et al. and Kurtenback in the menu of Keely, Jr. et al. and Selker in order to have different types of menu items in an arc-shaped menu so that these menu items would be easily accessible to hand movements that a user can make and remember easily (see Anderson col. 2, lines 1-3) and to have a commonly known method of bringing up a pop-up menu with a single stroke.

However, Keely, Jr. et al., Selker, Anderson et al. nor Kurtenbach teach the location of the tools relative to each other. However, at the time of the invention it would have been obvious to a person of ordinary skill in the art to relocate the menu items as described in the claim since such a modification would have only involved a mere change in the location of the menu items. Applicants have not disclosed that the particular positioning of the menu items solves any stated problem, provides any advantage, or used for any particular purpose. Further, a change in location is generally recognized as being with the level of ordinary skill in the art, see In re Japiske, 86 USPQ 70 (CCPA 1950). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Keely in view of Anderson and in further view of Kurtenbach to obtain the invention as specified in the above claim.

***Allowable Subject Matter***

14. Claim 26 is allowed.

15. The following is a statement of reasons for allowance:

Relative to independent claim 26, the major difference between the prior art of record (Keekly, Ono, Anderson, and Kurtenbach) and the instant invention, is that said prior art does not teach a method wherein if a user is inking from a drawing canvas and the inking crosses into the menu, inking still occurs on the canvas.

***Conclusion***

16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Leavitt et al. (US 6,918,091) disclose a cursor-based computing environment having a display where a user definable interface (UDI) is displayed upon activation by a user.

17. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen G. Sherman whose telephone number is (571) 272-2941. The examiner can normally be reached on M-F, 8:00 a.m. - 4:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amr Awad can be reached on (571) 272-7764. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

SS

AMR A. AWAD  
SUPERVISORY PATENT EXAMINER  


29 January 2007